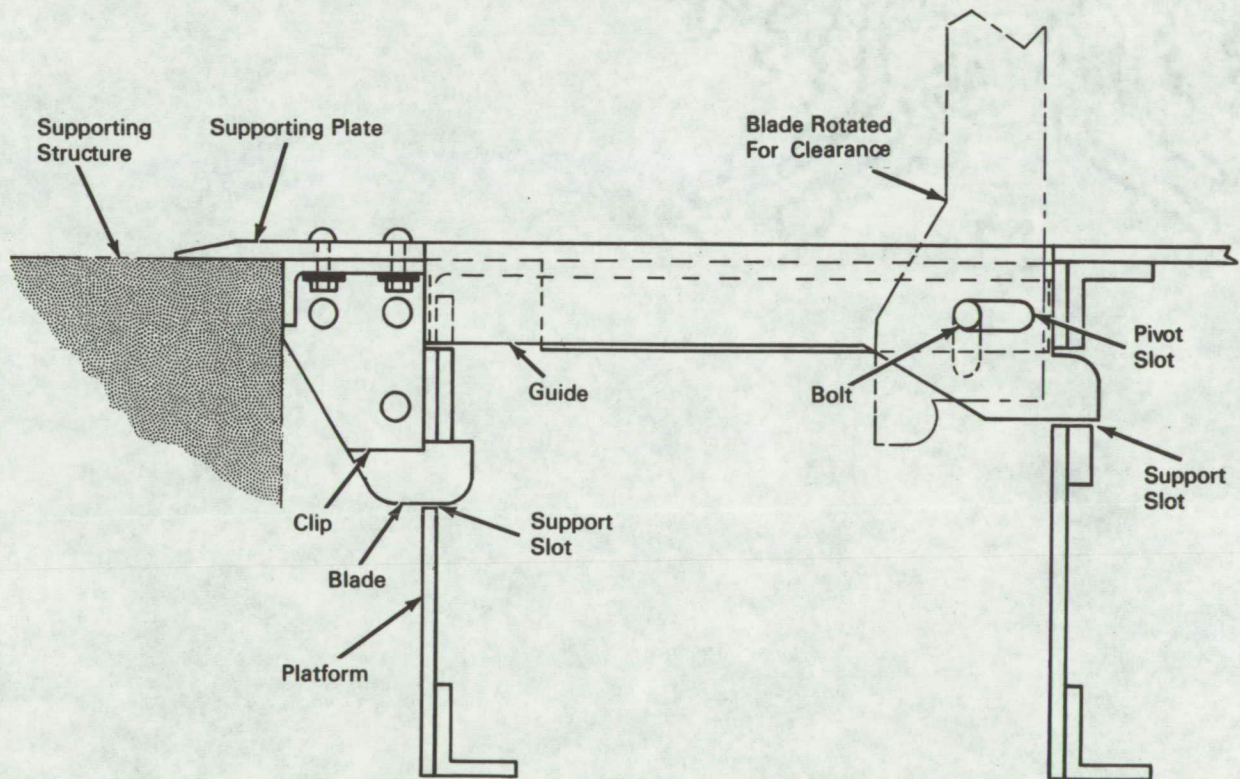


NASA TECH BRIEF



NASA Tech Briefs are issued to summarize specific innovations derived from the U.S. space program, to encourage their commercial application. Copies are available to the public at 15 cents each from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151.

Work Platform Is Supported by Self-Locking Blades



The problem:

In the engine bay area of the Saturn S-II, a work platform is required for the installation, inspection, and maintenance of equipment. Such a platform must be rigidly supported when in place but must also be capable of being quickly moved out of the way when not in use.

The solution:

A work platform that incorporates a supporting plate that engages the deck edge of the supporting

structure when lowered into place. The supporting plate is attached to a number of blades that are hinged to the platform in such a way that they latch in the horizontal (down) position to support the platform by means of the plate, and may be unlatched and moved upward through a 90° arc when the platform is to be moved out of the way.

How it's done:

The work platform mounts a supporting plate attached by several blades by means of bolts through

(continued overleaf)

pivot slots. Clips on each side of each blade secure it to the plate. Each blade slides between two guides, attached to the platform, a distance equal to the length of the pivot slot, in order to engage or disengage the blade toe in the support slots. The blade assembly swings up into a vertical position (shown in phantom) to clear the adjoining supporting structure when raising the platform out of the way. As the platform is lowered into place, the blades are lowered into the support slots and locked in place by the blade toes so that the supporting plate engages the edge of the supporting structure deck to hold the platform in working position.

Note:

Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama 35812
Reference: B67-10180

Patent status:

No patent action is contemplated by NASA.

Source: T. Rudderow
of North American Aviation, Inc.
under contract to
Marshall Space Flight Center
(M-FS-2297)